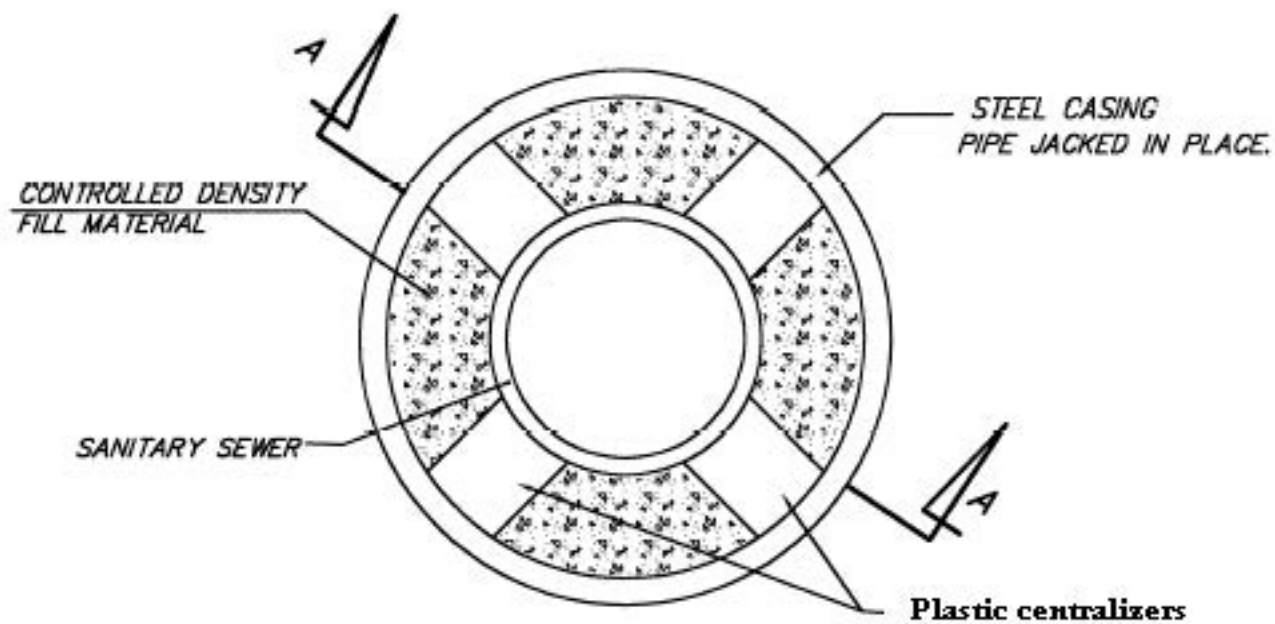


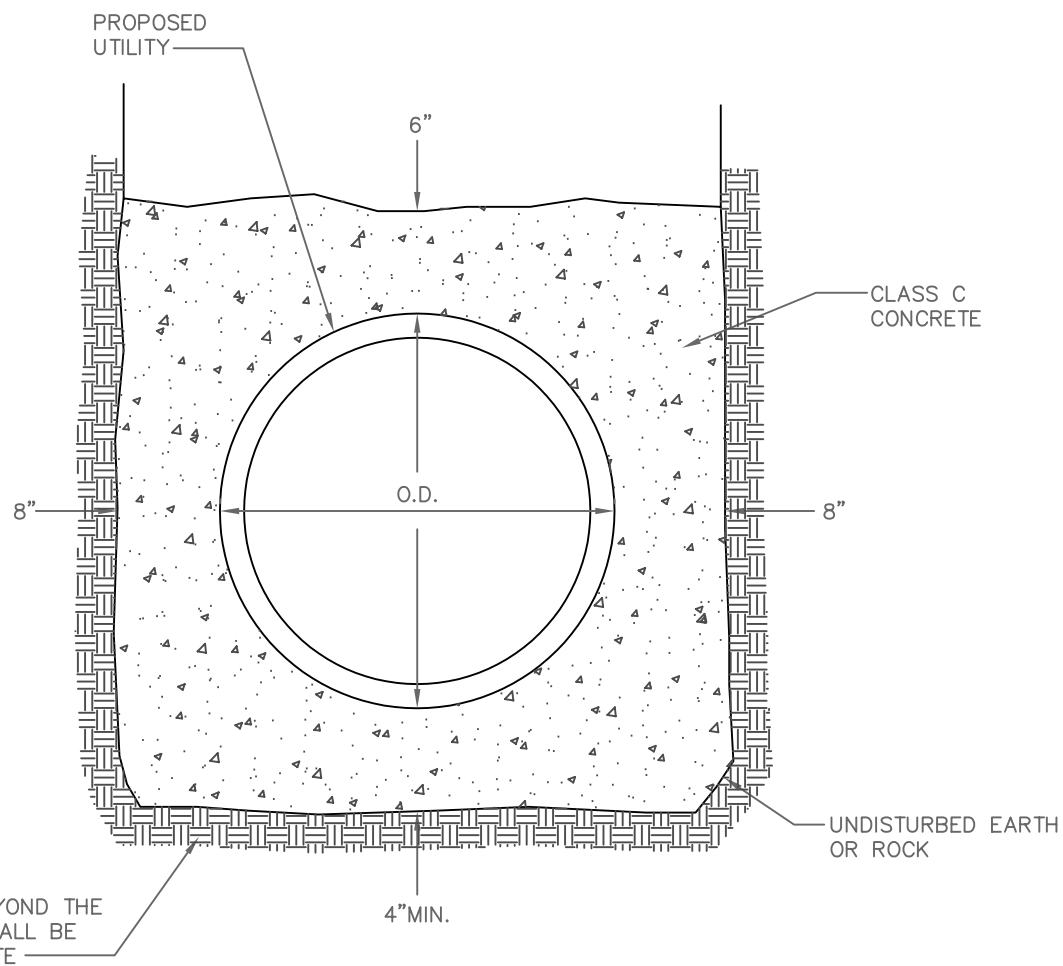
BORING DETAIL SECTION A-A



JACK CASING DETAIL

NOTES:

1. Steel Casing shall be ASTM A-53, Grade B, with smooth bore and exterior, minimum yield 35,000 psi. Size and thickness as indicated in plans.
2. Sanitary sewer size and type as indicated on the plans.
3. Clearance between the outside of the carrier pipe and the inside of the casing pipe shall be maintained using plastic centralizers.
4. Work to be performed in accordance with CW 1800.



NOTE: THE ENCASEMENT LIMITS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION SUCH THAT THE ENCASEMENT TERMINATES AT THE UTILITY PIPE JOINT. THE JOINT SHALL BE FREE OF ENCASEMENT SO THAT IT CAN ACT AS A FLEXIBLE JOINT.

CANAL WINCHESTER, OHIO

TYPICAL CONCRETE
ENCASEMENT

DATE:

SCALE:

DWG. NO.

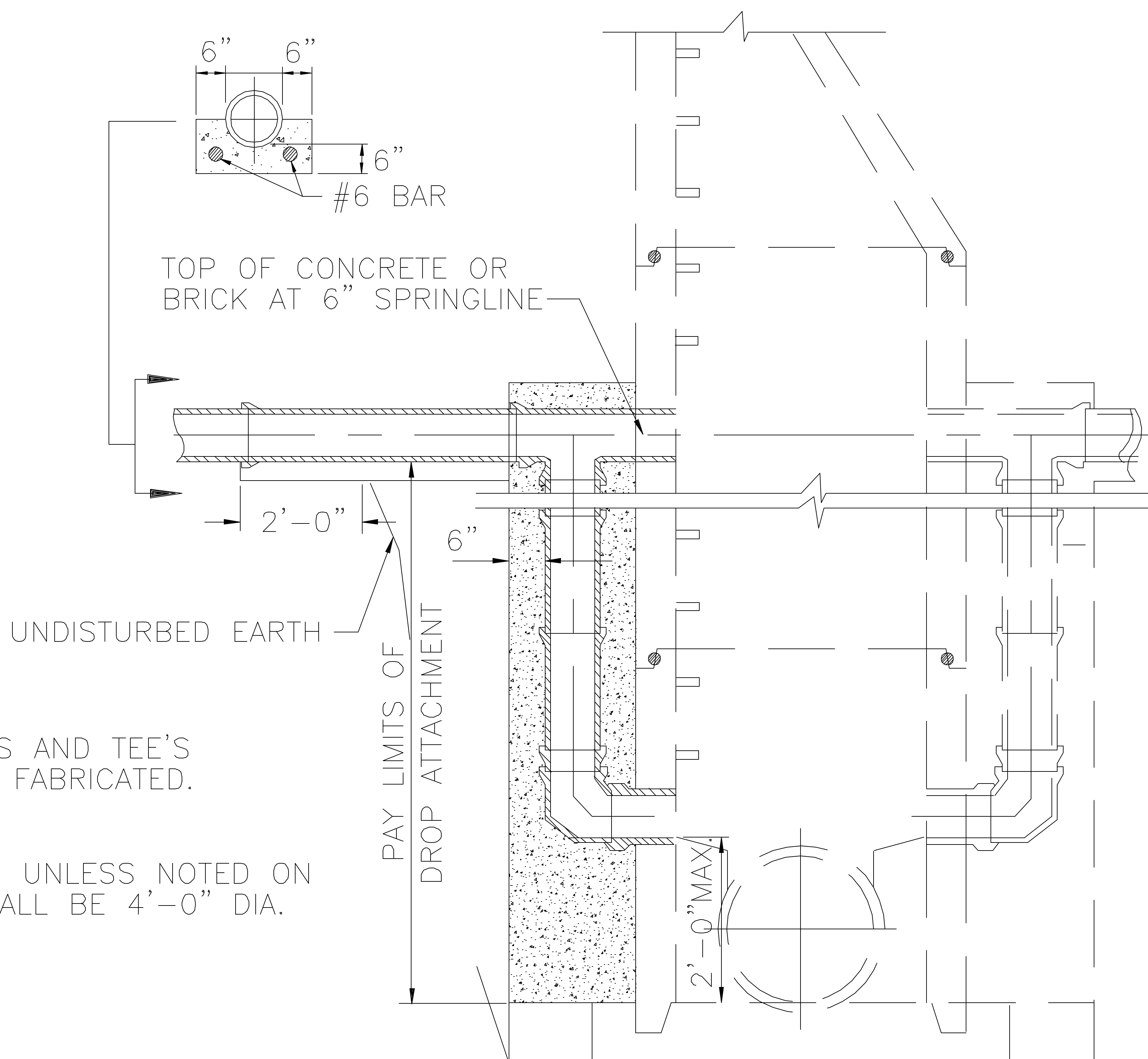
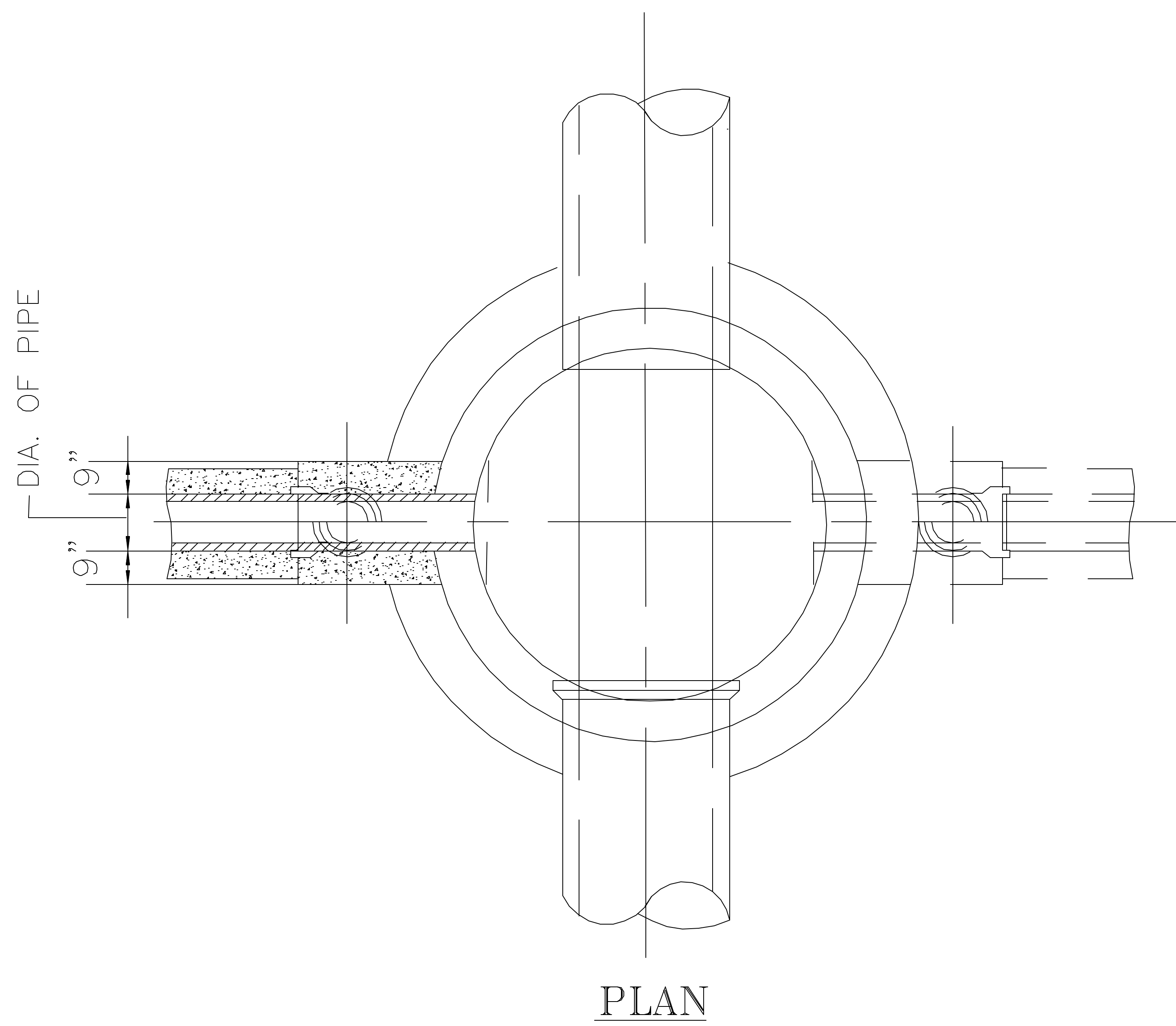
JUNE 1992

NO SCALE

SAN-08-01

REPLACES DWG. NO. 1450

REVISED JAN 2002



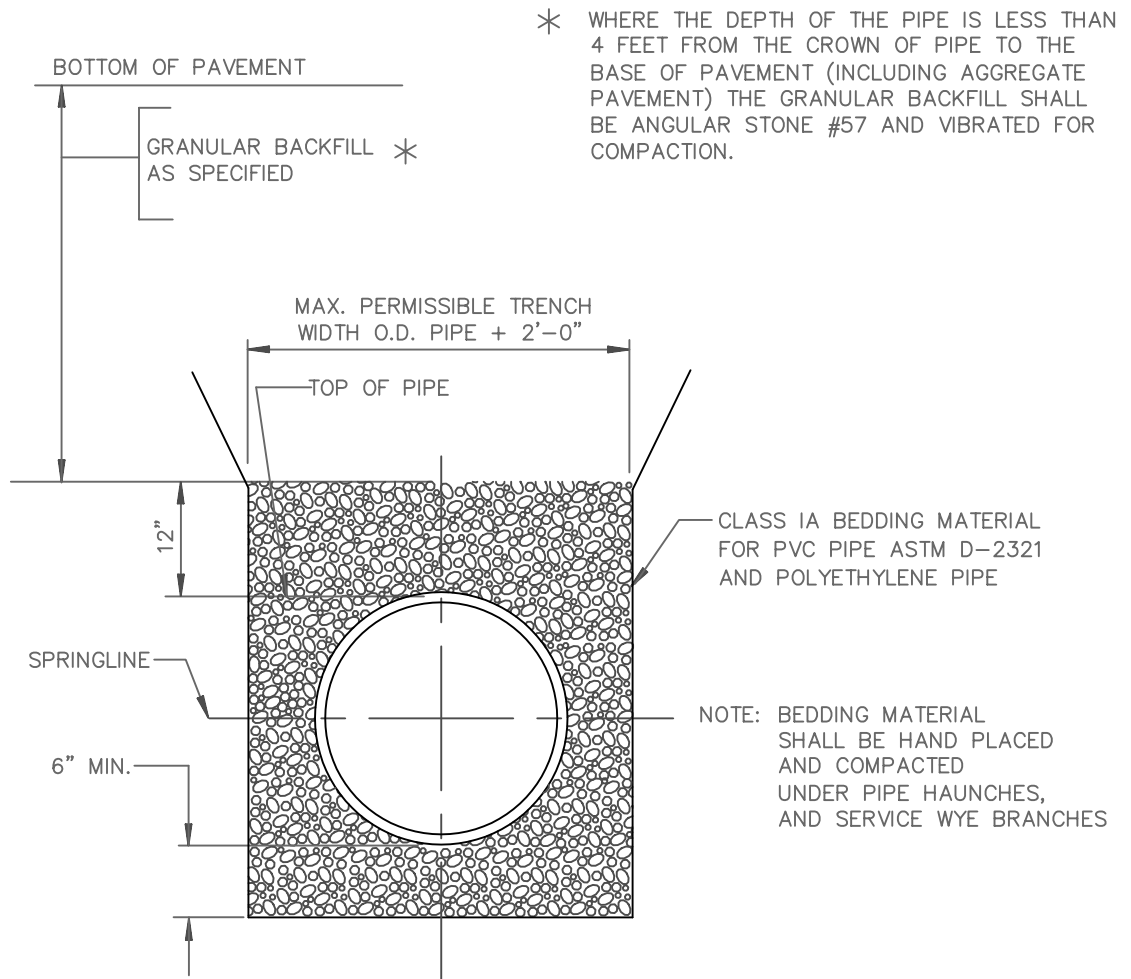
NOTE: ALL BENDS AND TEE'S SHALL BE FABRICATED.

NOTE: MANHOLES UNLESS NOTED ON PLANS SHALL BE 4'-0" DIA.

SEWER SIZE	DROP SIZE
8"	8"
10"	10"
12"-15"-18"	12"
21"-24"	15"
27"-30"-36"	18"

REVISED DEC. 2002

CANAL WINCHESTER, OHIO		
SANITARY MANHOLE DROP ATTACHMENT		
DATE:	SCALE:	DWG. NO.
AUG 2001	NO SCALE	SAN-03-01

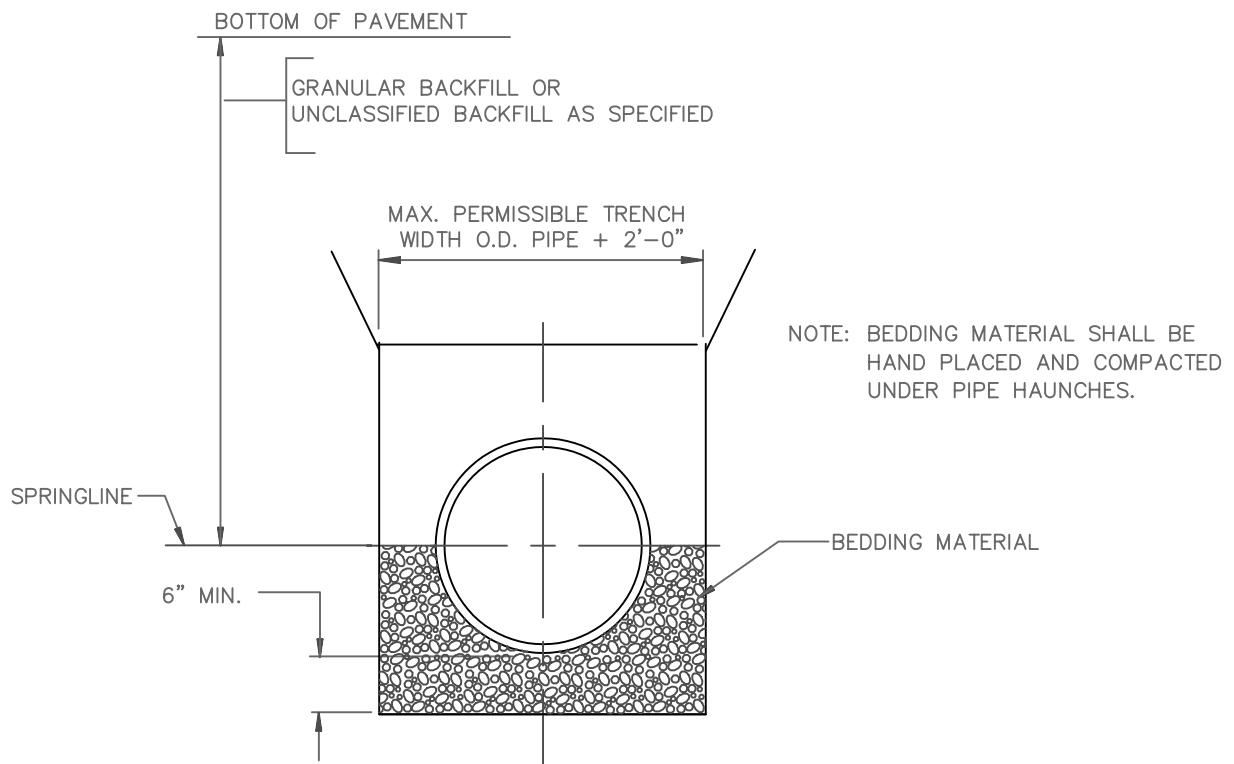


CANAL WINCHESTER, OHIO

BEDDING DETAIL FOR
PVC AND POLYETHYLENE
PIPE INSTALLATION

DATE:	SCALE:	DWG. NO.
AUG 2001	NO SCALE	SAN-05-01

REVISED OCT 2002

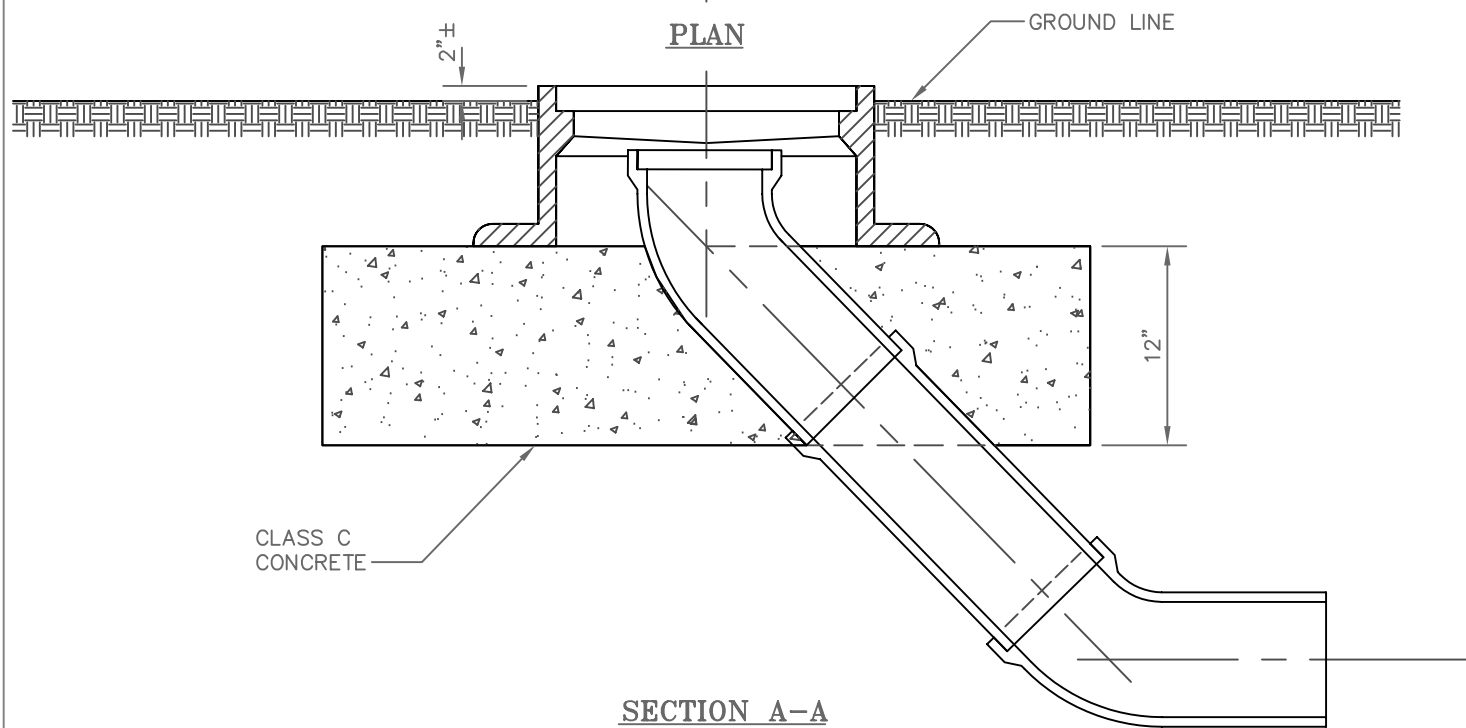
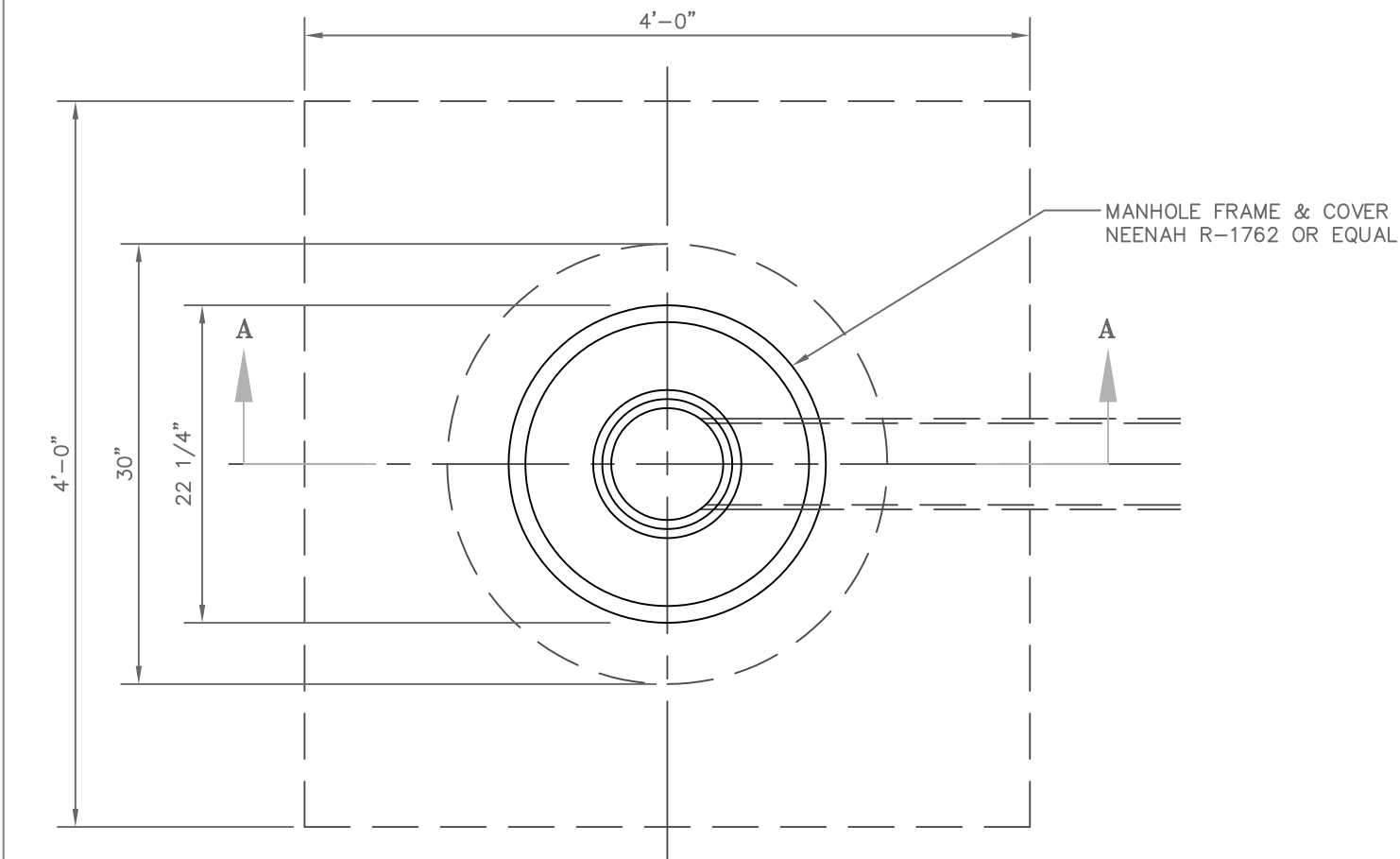


CANAL WINCHESTER, OHIO

STANDARD BEDDING
FOR
RIGID PIPE

DATE:	SCALE:	DWG. NO.
AUG 2001	NO SCALE	SAN-06-01

REVISED NOV 2001



NOTE: WHEN CLEANOUT IS SET IN PAVEMENT BACKFILL
SHALL BE CONTROLLED DENSITY FILL.

CANAL WINCHESTER, OHIO

SANITARY CLEANOUT

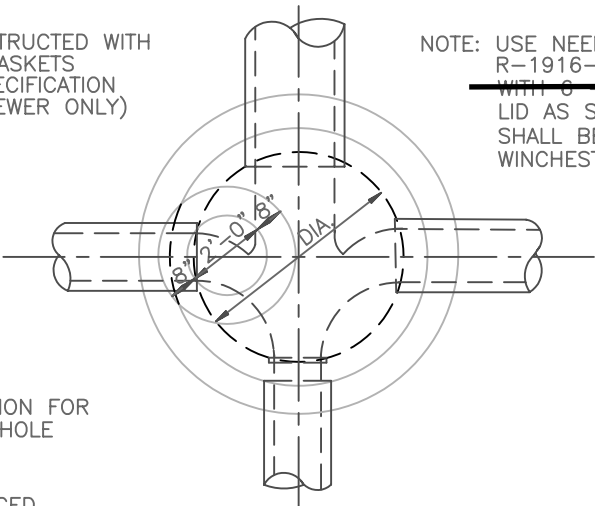
DATE:	SCALE:	DWG. NO.
JUNE 1992	NO SCALE	SAN-07-01

REPLACES DWG. NO. 1500

REVISED MAR 2002

NOTE: ALL MANHOLES TO BE CONSTRUCTED WITH JOINT MADE WITH RUBBER GASKETS CONFORMING TO A.S.T.M. SPECIFICATION DESIGNATION C-443 (SAN SEWER ONLY) SPECIFICATION DESIGNATION

NOTE: USE NEENAH MANHOLE FRAME & COVER R-1916-C (TYPE "C" LID) OR R-1762 WITH 8 - 3/4" DIA. HOLES CORED THRU LID AS SHOWN ON THE DRAWINGS. LIDS SHALL BE EMBOSSED WITH THE CANAL WINCHESTER SEAL (SANITARY SEWER).



PLAN

NOTE: MAX. PERMISSIBLE EXCAVATION FOR MANHOLES IS O.D. OF MANHOLE PLUS 4'-0".

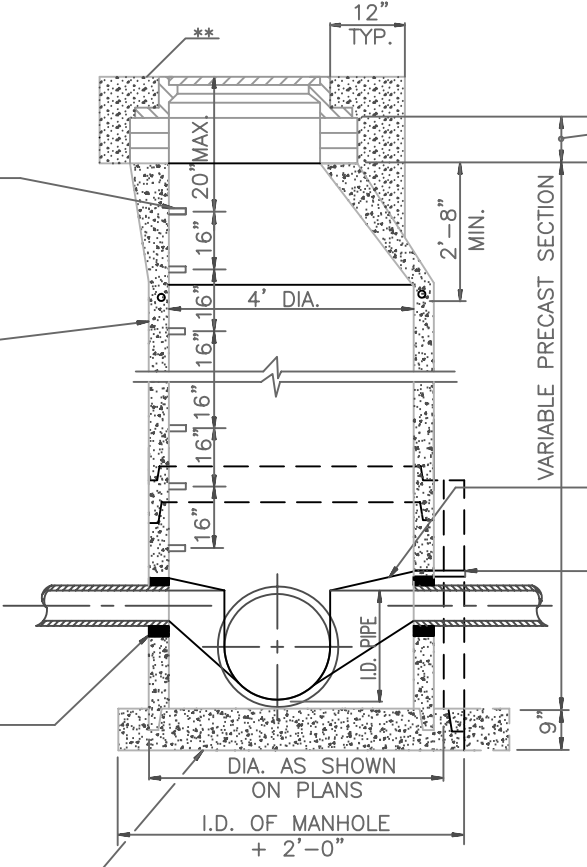
** CONCRETE COLLAR TO BE PLACED IN PAVEMENT ONLY. PAYMENT TO BE INCLUDED WITH UNIT PRICE BID FOR MANHOLE L.F.D.

POLYPROPYLENE M.A. IND. PS-1, OR EQUAL

EITHER FLAT SLAB OR ECCENTRIC TRANSITION SECTION MAY BE USED TO REDUCE 5' OR 6' DIA. MANHOLES TO 4' DIA.

ALL PIPES ENTERING OR LEAVING PRECAST CONCRETE MANHOLE SHALL BE CONNECTED INTO THE MANHOLE USING FLEXIBLE RUBBER GASKETS MEETING ASTM SPEC. C-443. JOINTS SHALL BE WATER TIGHT. (SAN. SEWER ONLY)

PRECAST CONCRETE BASE MAY BE USED IN PLACE OF POURED CONCRETE BASE

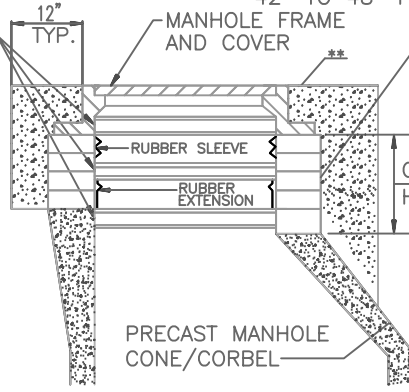


SECTION

PRECAST MANHOLE

4" TO 24" PIPE = 4' DIA MANHOLE
27" TO 36" PIPE = 5' DIA. MANHOLE
42" TO 48" PIPE = 6' DIA. MANHOLE

STAINLESS STEEL EXPANSION BANDS



MANHOLE CHIMNEY SEAL

HIGH DENSITY POLYETHYLENE ADJUSTING RINGS BY LADTECH, INC.

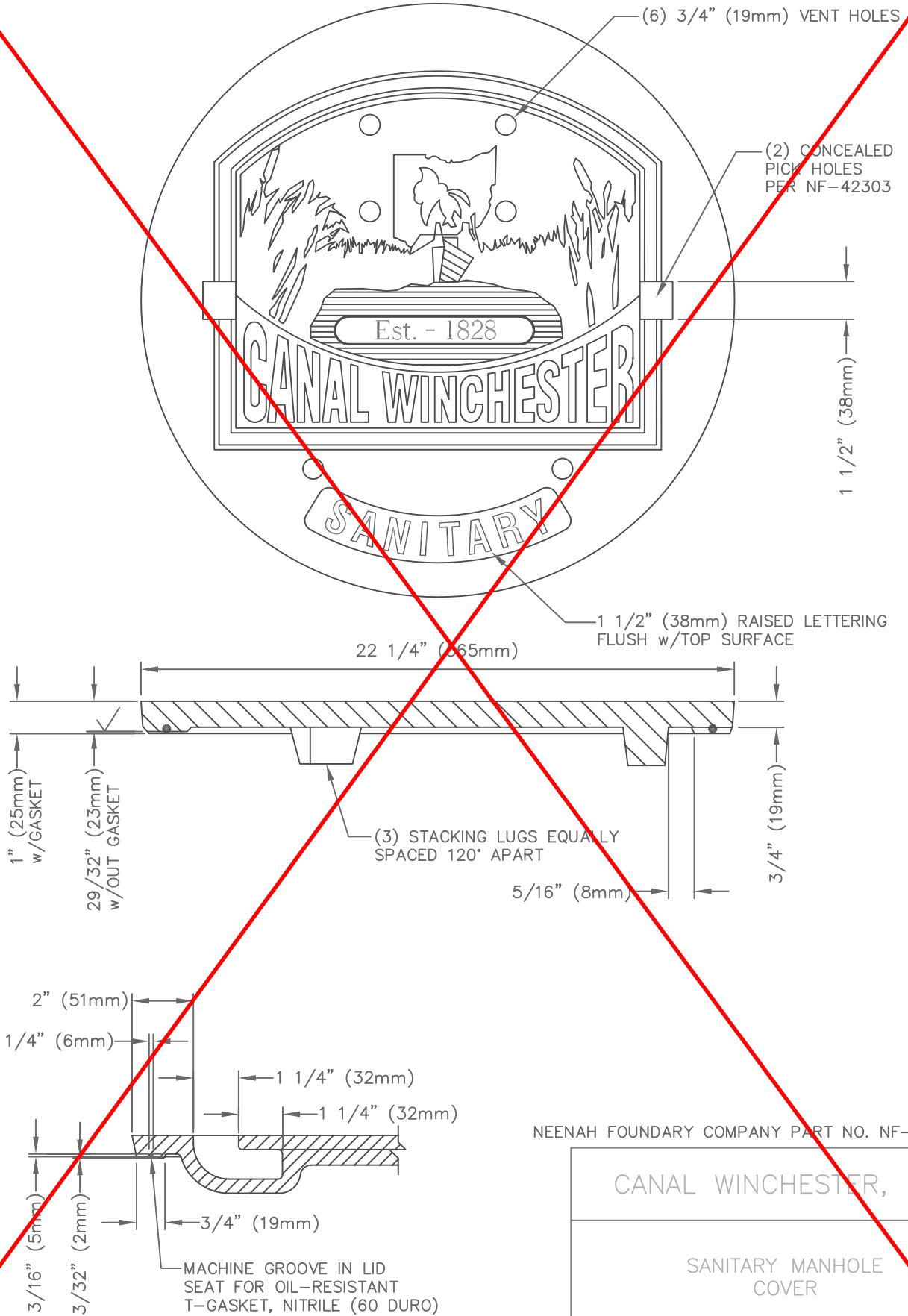
CANAL WINCHESTER, OHIO

STANDARD SANITARY MANHOLE

REVISED Jan. 2008

DATE:	SCALE:	DWG. NO.
AUG 2001	NO SCALE	SAN-01-01

REVISED JAN 2002



T-GASKET PICK HOLE DETAIL

NEENAH FOUNDRY COMPANY PART NO. NF-1762-T08

CANAL WINCHESTER, OHIO

SANITARY MANHOLE COVER

DATE:	SCALE:	DWG. NO.
JULY 2002	NO SCALE	SAN-09-02

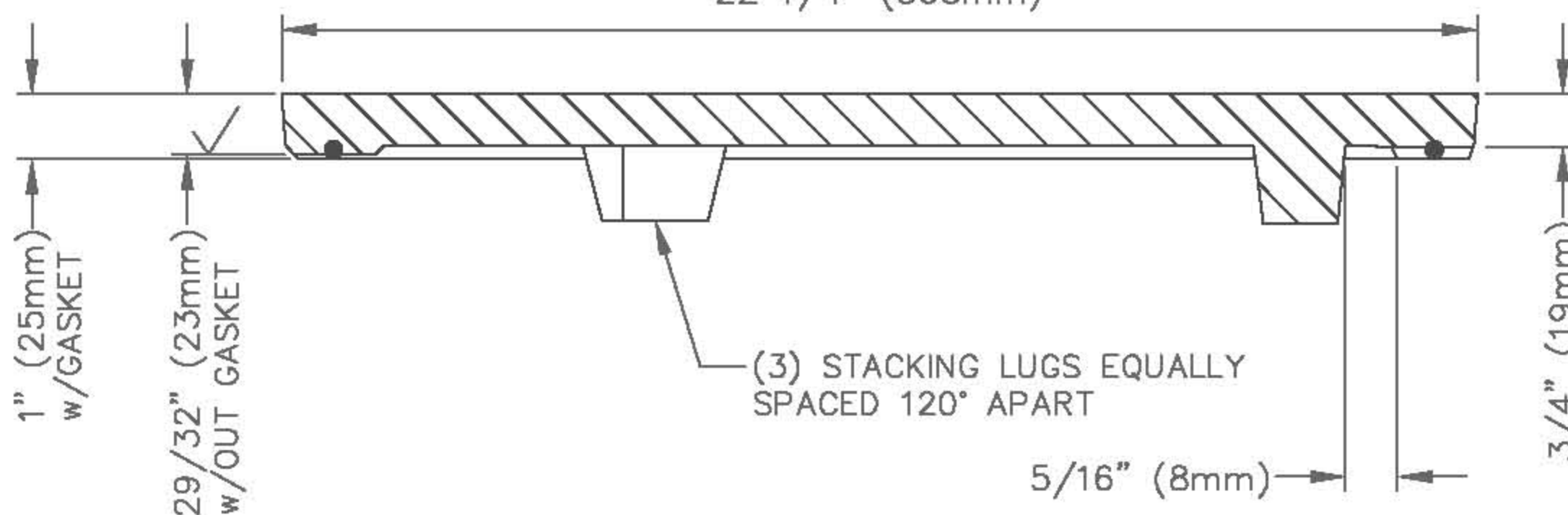


(2) CONCEALED
PICK HOLES
PER NF-42303

1 1/2" (38mm)

1 1/2" (38mm) RAISED LETTERING
FLUSH w/TOP SURFACE

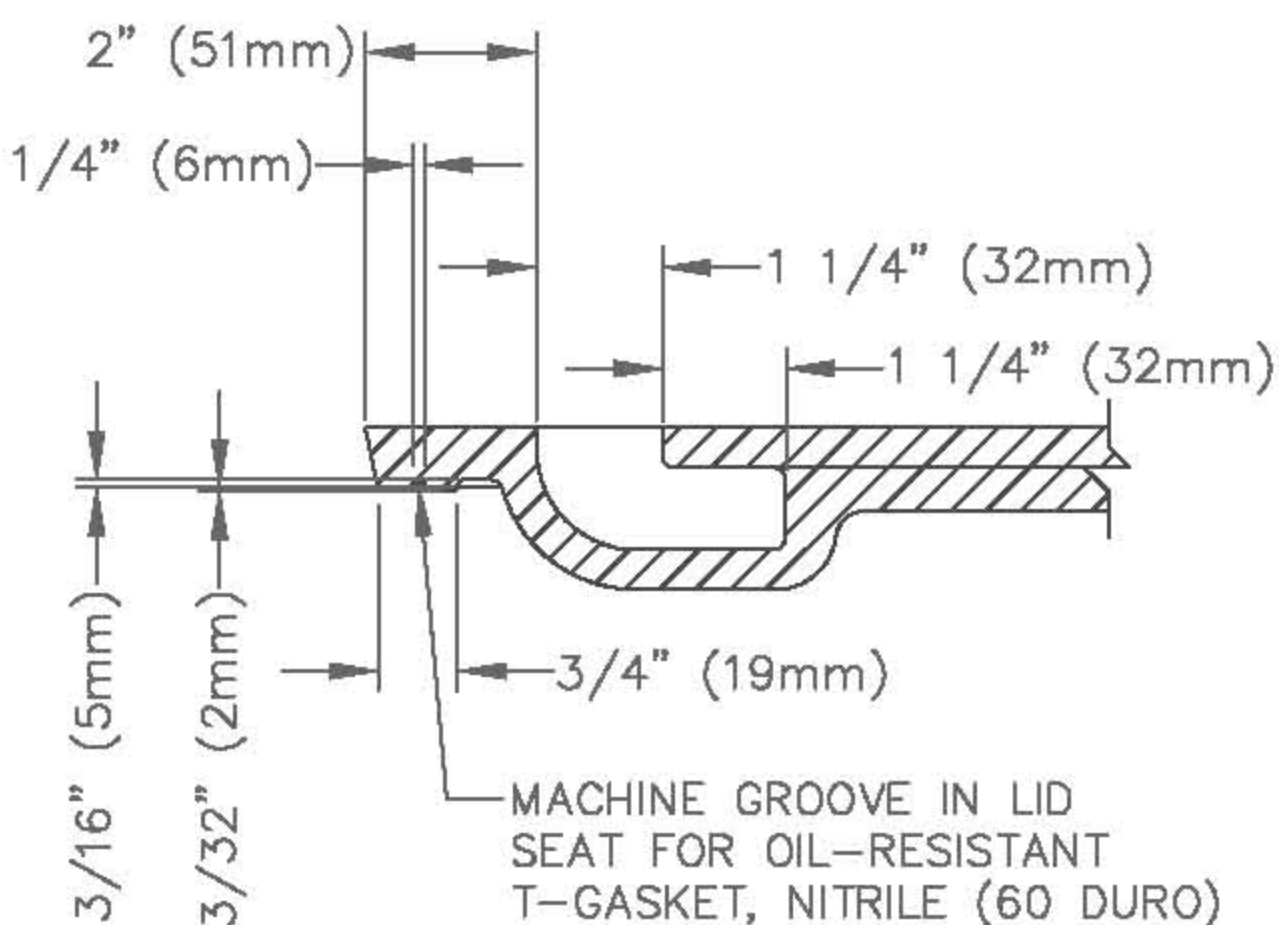
22 1/4" (565mm)



(3) STACKING LUGS EQUALLY
SPACED 120° APART

5/16" (8mm)

3/4" (19mm)



MACHINE GROOVE IN LID
SEAT FOR OIL-RESISTANT
T-GASKET, NITRILE (60 DURO)

T-GASKET PICK HOLE DETAIL

NEENAH FOUNDRY COMPANY PART NO. NF-1762-T08

CANAL WINCHESTER, OHIO

SANITARY MANHOLE
COVER

REVISED Jan. 2008

DATE:	SCALE:	DWG. NO.
JULY 2002	NO SCALE	SAN-09-02

-(2) CONCEALED
PICK HOLES
PER NF-42303

1 1/2" (38mm)

-1 1/2" (38mm) RAISED LETTERING
FLUSH w/TOP SURFACE

22 1/4" (565mm)

Technical drawing of a pipe flange showing dimensions and features:

- Overall width: 1" (25mm) w/GASKET
- Flange thickness: 29/32" (23mm) w/OUT GASKET
- Internal feature: (3) STACKING LUGS EQUALLY SPACED 120° APART
- Internal feature dimension: 5/16" (8mm)
- Overall width (excluding gasket): 3/4" (19mm)

(3) STACKING LUGS EQUALLY
SPACED 120° APART

5/16" (8mm)-

2" (51mm)

1/4" (6mm)

1 1/4" (32mm)

1 1/4" (32mm)

3/16" (5mm)

3/32" (2mm)

3/4" (19mm)

MACHINE GROOVE IN LID
SEAT FOR OIL-RESISTANT
T-GASKET, NITRILE (60 DURO)

T-GASKET PICK HOLE DETAIL

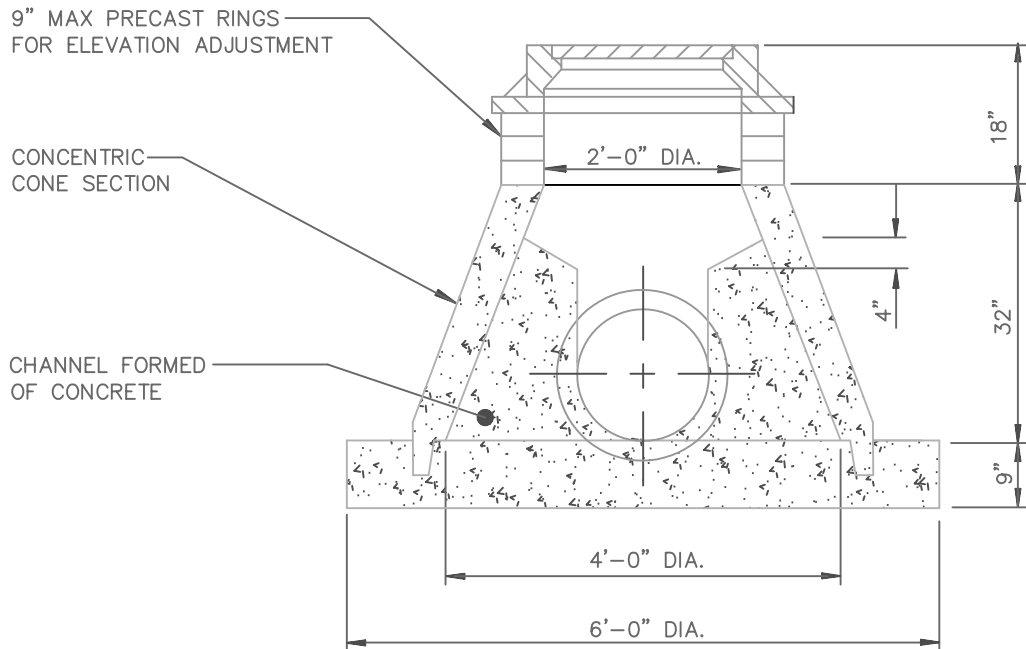
NEENAH FOUNDRY COMPANY PART NO. NF-1762-T08

CANAL WINCHESTER, OHIO

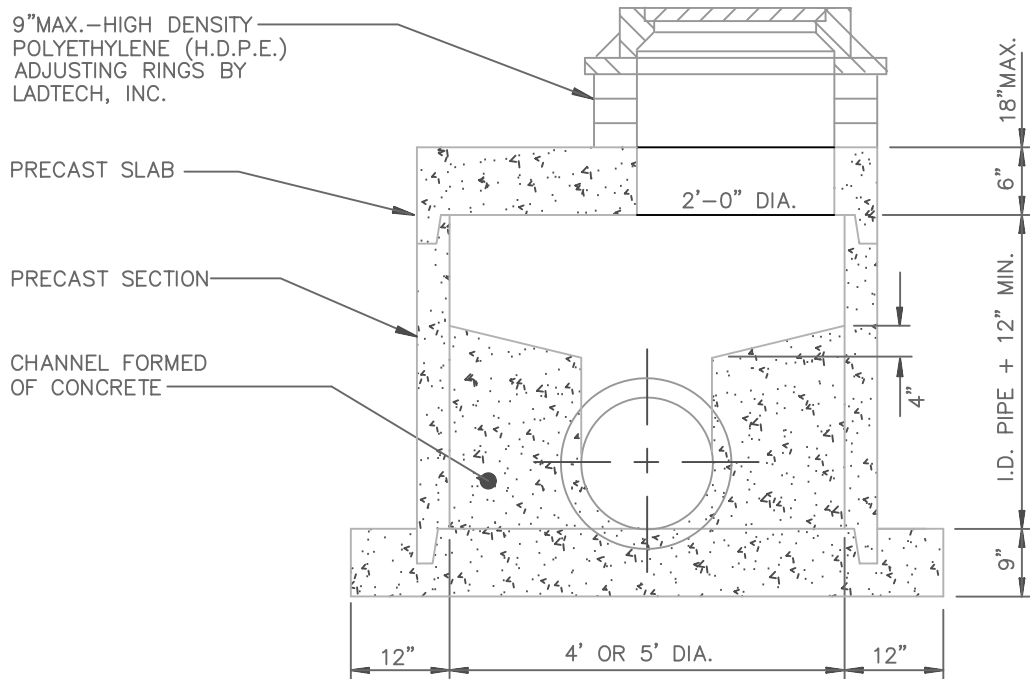
SANITARY MANHOLE
COVER

DATE:	SCALE:	DWG. NO.
JULY 2002	NO SCALE	SAN-09-02

NOTE: USE NEENAH MANHOLE FRAME & COVER R-1916-C (TYPE "C" LID) OR R-1762 WITH 6 - 3/4" DIA. HOLES CORED THRU LID AS SHOWN ON THE DRAWINGS. LIDS SHALL BE EMBOSSED WITH THE CANAL WINCHESTER SEAL (SANITARY SEWER).



SECTION



SECTION

NOTE: ALL PIPES ENTERING OR LEAVING PRECAST CONCRETE MANHOLE SHALL BE CONNECTED INTO THE MANHOLE USING FLEXIBLE RUBBER GASKETS MEETING ASTM SPEC. C-443. JOINTS SHALL BE WATER TIGHT. (SANITARY SEWER ONLY)

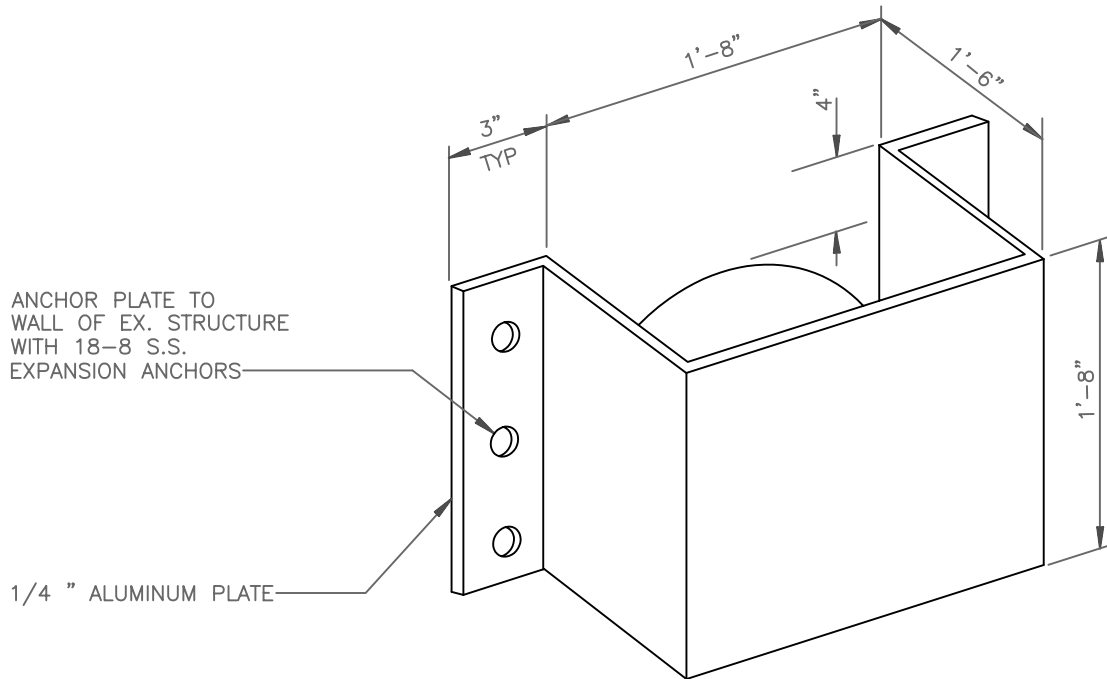
NOTE: MANHOLES UNLESS NOTED ON PLANS SHALL BE 4'-0" DIAMETER.

CANAL WINCHESTER, OHIO

4' & 5' PRECAST SANITARY MANHOLE
TYPICAL SHALLOW
CONSTRUCTION METHODS

DATE:	SCALE:	DWG. NO.
AUG 2001	NO SCALE	SAN-02-01

REVISED JAN 2002



SPLASH PLATE

CANAL WINCHESTER, OHIO

SPLASH PLATE

DATE:

AUG 2001

SCALE:

NO SCALE

DWG. NO.

SAN-04-01